

**III. REMARKS**

Claims 1-7 and 21-26 are pending in this application. By this Amendment, claims 1-4, 6-7, 21-23 and 25-26 have been amended. These amendments are being made to facilitate early allowance of the presently claimed subject matter. Applicants reserve the right to pursue the full scope of the subject matter of the original claims in a subsequent patent application that claims priority to the instant application. Reconsideration in view of the above amendments and following remarks is respectfully requested.

Entry of this Amendment is proper under 37 C.F.R. §1.116(b) because the Amendment: (a) places the application in condition for allowance as discussed below; (b) does not raise any new issues requiring further search and/or consideration; and (c) places the application in better form for appeal. Accordingly, Applicants respectfully request entry of this Amendment.

In the Office Action, claims 1-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bjorkman et al. (US 6,340,435), hereinafter "Bjorkman," in view of Colombo et al. (US Pub. No. 2003/0109146), hereinafter "Colombo"; and claims 21-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bjorkman in view of Colombo and Todd (US 6,733,830). Applicants respectfully submit that the claimed invention is allowable for the reasons that follow.

With respect to independent claims 1 and 21, Applicants submit that the suggested combinations of the cited prior art do not disclose or suggest each and every claimed feature. For instance, Bjorkman and Colombo do not disclose or suggest, *inter alia*, "the dielectric layer including a first dielectric sub-layer, a second dielectric sub-layer and a first non-discrete transitional dielectric sub-layer residing between the first and second dielectric sub-layer[.]" (Claims 1 and 21). As the Office admits, Bjorkman does not disclose or suggest a first non-

discrete transitional dielectric sub-layer residing between the first and second dielectric sub-layer. (See Office Action at page 2.) Contrary to the assertion of the Office, however, Applicants submit that Colombo does not overcome this deficiency of Bjorkman because layer 14b of Colombo is not "residing between the first and second dielectric sub-layer" as included in the claimed invention. (Claim 1 of the claimed invention). Rather, sub-layer 14b of Colombo is located between a semiconductor substrate 12 and a silicon dioxide sub-layer 14a. (See page 1, paragraph 0005.) As is well known in the art, a semiconductor substrate is not a dielectric layer. As such, Bjorkman and Colombo do not disclose or suggest the above feature. While Applicants believe the claims already recite the sub-layers are dielectric, Applicants have revised the claims to emphasize this feature. With regard to claim 21, Applicants submit that Todd does not overcome, *inter alia*, this deficiency of Bjorkman and Colombo. In view of the foregoing, the suggested combinations of the Bjorkman, Colombo and Todd do not disclose or suggest all the features of the claimed invention.

In the Office Action, the Office asserts that Colombo shows "a non-discrete transitional sub-layer between the two adjacent layers." (Office Action at page 7). Applicants respectfully disagree because the above statement of the Office unfoundedly over-broadens the teachings of Colombo. Colombo only specifically discloses a transitional sub-layer between a semiconductor substrate 12 and a silicon dioxide sub-layer 14a, which is formed due to the "nature that arise[s] during the formation of a layer using silicon and oxygen (i.e., silicon dioxide)." (Paragraph 0005; parenthetical explanation added). Colombo does not disclose a non-discrete transitional dielectric sub-layer residing between two dielectric sub-layers, and Colombo cannot form such a non-discrete transitional dielectric sub-layer due to the "nature that arise[s] during the formation of a layer using silicon and oxygen (i.e., silicon dioxide)." (Id.)

Moreover, Applicants submit that there is no suggestion or motivation to combine Bjorkman and Colombo because there is no reasonable expectation of success of the combination that can be founded in the teachings of Bjorkman and Colombo. In Colombo, the transitional sub-layer 14b is formed due to the "nature that arise[s] during the formation of a layer using silicon and oxygen (i.e., silicon dioxide)." (Paragraph 0005; parenthetical explanation added). This specific nature of the formation of a layer using silicon and oxygen does not exist in Bjorkman regarding dielectric layers 40, 42 and 44. That is, there is no reasonable expectation of success to adopt the teachings of Colombo regarding the transitional layer 14b into Bjorkman to form a transitional layer between dielectric layers 40, 42 and 44. Applicants submit that the Office can obtain suggestion or motivation to combine Bjorkman and Colombo regarding the first non-discrete transitional dielectric sub-layer only from the hindsight teachings of the claimed invention.

In view of the foregoing, Applicants submit that the Office does not establish a *prima facie* case of obviousness and respectfully request withdrawal of the rejections.

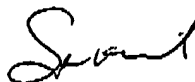
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Applicants respectfully submit that the application is in condition for allowance. Should the Examiner believe that anything further is necessary to place the application in better condition for allowance, the Examiner is requested to contact Applicants' undersigned attorney at the telephone number listed below.

Respectfully submitted,



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